

# Natural Resource Damage Assessment and Restoration Program

## *Northeast Region*

When hazardous substances enter the environment, fish, wildlife, and other natural resources can be injured. The U.S. Fish and Wildlife Service, along with other Department of Interior, State, Tribal and Federal partners, act as “trustees” for these resources. The U.S. Fish and Wildlife Service has responsibility for National Wildlife Refuges, endangered and threatened species, migratory birds, and other natural resources. Trustees seek to identify the natural resources injured, determine the extent of the injuries, recover damages from those responsible, and plan and carry out natural resource restoration activities. These efforts are possible under the **Natural Resource Damage Assessment and Restoration (NRDAR) Program**, the goal of which is to restore natural resources injured by contamination.

The primary benefit of the NRDAR Program is that injured natural resources can be restored at no cost to the American taxpayers. Instead, the parties responsible for the injuries pay for the restoration.

### NRDAR Process

To fulfill the mission of restoring natural resources that have been injured by oil spills or hazardous substance releases, several steps must be taken. The process works like this:

1. Oil is spilled or a hazardous material is released into the environment.
2. While other agencies like the Coast Guard or EPA address clean up, the natural resource trustees determine the magnitude of the injuries to natural resources. This damage assessment can begin during the cleanup, but the full extent of injuries usually cannot be determined until after the cleanup is complete. In some cases, the trustees work cooperatively with the responsible parties to conduct this assessment.
3. Once the assessment is complete, the trustees and the responsible parties usually attempt to reach a negotiated settlement for the cost of the restoration, for the loss of the use of the land or resources to the general public, and for the money the trustees spent to assess the damages. If a negotiated settlement cannot be reached, the trustees can take the

responsible parties to court. Most cases are settled out of court.

4. Trustees develop a restoration plan that specifies the actions necessary to restore the injured resources. The public is invited to submit restoration activities.
5. Restoration takes place. Restoration actions can be carried out where the contamination occurred or at an alternate location which, when restored, provides a suitable replacement for the injured or lost resources. Sometimes the responsible party donates land to be restored and protected. Restoration can also be in the form of restoring populations of injured resources such as birds or freshwater mussels.
6. Finally, the trustees monitor the restoration projects to assure that they continue to be properly operated and to ensure the long-term success of the restoration.

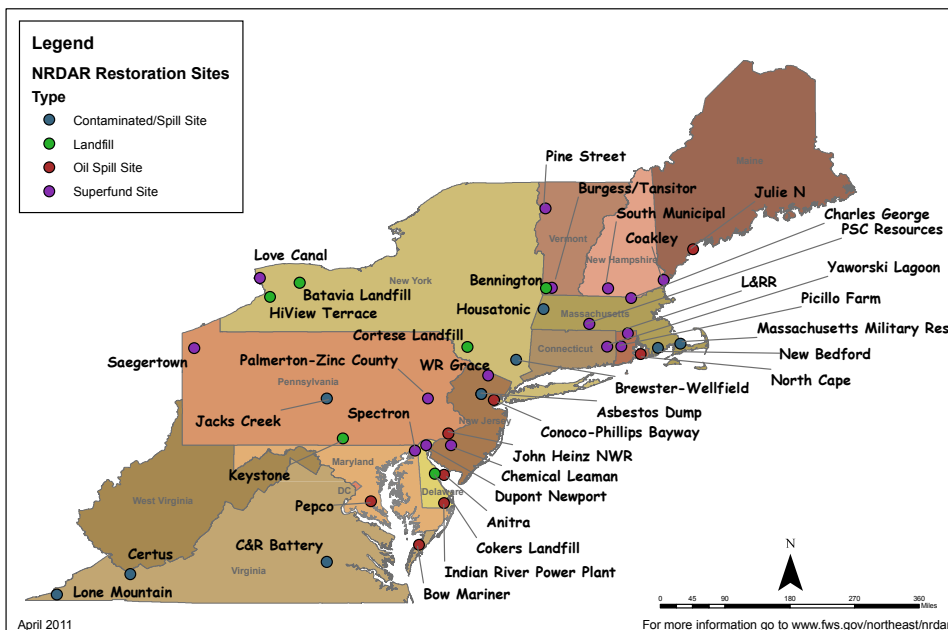
### NRDAR Process in Action

The Certus Chemical Spill, North Cape Oil Spill, and Dupont Newport Superfund Site all offer examples of successful restoration of damaged natural resources.

### 1) Certus Chemical Spill

#### The Problem

On August 27, 1998, a tanker truck overturned in Tazewell County, Virginia. The truck released approximately 1,350 gallons of Octocure 554-revised, a chemical used in the manufacture of foam rubber and rug materials, into a small tributary near the Clinch River. Prior to the spill, the upper Clinch River supported a wide array of organisms, including three federally listed mussel species. The Octocure 554-revised spill eliminated, or nearly eliminated, entire biotic communities within the seven mile impacted stretch of the Clinch River. Populations of freshwater mussels were especially affected by this spill.





*Thousands of endangered mussels have been released into Virginia's Clinch River*

## Restoration

Trustees quantified the damage caused by this spill, and reached a settlement with Certus Inc., the responsible party, to pay \$3,800,000 to the Department of the Interior (DOI) NRDAR Fund for the restoration of natural resources. In July 2004, a Restoration Plan and Environmental Assessment described restoration projects that combined habitat protection and a long term mussel propagation program. Together, Virginia Tech and the Virginia Department of Game and Inland Fisheries started a freshwater mussel propagation program in 2004. Thirteen species of freshwater mussels, including three federally listed species, have been raised in hatcheries and released in the Clinch River by the thousands. Community outreach events have engaged the public in the release of juvenile mussels and in the restoration process.

## 2) North Cape Oil Spill

### The Problem

On January 19, 1996, an oil tanker named "North Cape" was grounded just offshore of the Rhode Island coast near the Truston Pond National Wildlife Refuge. 828,000 gallons of no. 2 fuel oil spilled from this tanker, and spread through Block Island Sound and the coastal salt ponds. This oil was mixed into the water column and driven into sediments from heavy wave action. This spill killed 9 million lobsters; 2,100 seabirds; 364,000 kg (802,482 pounds) of shellfish; and 111,000 kg (244,713 pounds) of fish. One million kilograms (2,204,622 pounds) of benthic macrofauna were also destroyed.

### Restoration

Trustees reached a settlement with K-Sea Transportation in June 2000. As the responsible party, K-Sea agreed to pay \$1.6 million for salt pond land acquisition, \$1.5 million for a multi-

species shellfish restoration project, \$3 million to purchase and protect loon nesting habitat, \$400,000 to purchase and protect eider nesting habitat, \$140,000 to manage and protect piping plover nesting habitat, \$160,000 to implement an anadromous fish restoration project, and \$800,000 to oversee and monitor the lobster restoration project.

So far, this successful restoration has included both land acquisition and conservation projects to restore the injured natural resources. 1.248 million legal-size female lobsters in Rhode Island Sound were protected by being v-notched (a practice in which the tails of broodstock lobsters are marked so they cannot be harvested). Trustees also secured permanent protection of 60 acres of land adjacent to Ninigret Pond, and acquired 1.5 million acres of land in Maine to protect over 125 loon nesting pair and their habitat. 600 nesting pairs of eider have been protected by the acquisition and protection of a 42 acre island off the coast of Maine. These restoration activities have also increased populations of oysters, bay scallops, and quahogs in numerous locations in Narragansett Bay and the coastal salt ponds.



*In January 1996, the North Cape barge and its tugboat ran aground in Rhode Island, spilling 828,000 gallons of home heating oil.*

## 3) DuPont Newport Superfund Site

### The Problem

DuPont purchased a pigment production facility at the Newport Site in Wilmington, Delaware in 1929 and manufactured pigment there until 1984. Two portions of the site bordering the Christina River were used for waste disposal. This waste migrated through runoff to the surrounding wetlands and the river. This site was contaminated with the heavy metals lead, cadmium, and zinc. In 1987, the U.S. Environmental Protection Agency (EPA) added this site to the National Priorities List, making this a "Superfund" site.



*Natural materials reduce bank erosion along Delaware's Mispillion River.*

## Restoration

In 2006, the trustees reached a cooperative settlement with DuPont, the Responsible Party. DuPont paid over \$2.2 million dollars for natural resource damages; approximately \$608,933 was used to improve tidal wetland habitat. This settlement funded the remediation of the "Pike Property," near the Mispillion River, which occurred between 1996 and 2001. Natural materials were used to restore and protect over 2,000 feet of eroding shoreline. Dredging increased water flow and tidal exchange, and created fish rearing ponds. Restoration projects improved the habitat by removing invasive Phragmites and planting native shrubs to create habitat for song birds. A more diverse plant community has recovered in 90% of the marsh, and native plants now dominate the site.

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